Serba-serbi Sistem berbasis GNU/Linux

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`http://rms46.vlsm.org/1/69.pdf`

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Agenda

- w (who)
- top (proses)
- proses (proc)
- init (proses #1)
- partisi disk (fdisk)
- mount (fstab)
- FHS (direktori)
- passwd dan shadow

w (who)

- **w: siapa yang login (20 Mei 2003)?**

```
13:21:05 up 50 days, 20:39, 35 users,
load average: 0.09, 0.21, 0.33

USER       TTY    FROM           LOGIN@ IDLE   JCPU    PCPU   WHAT
rms46      pts/6  ws-28-150 ..   13:20 0.00s   0.42s   0.30s  w
ronal100   pts/1  lab1103-25..   13:18 2:54    0.09s   0.09s  -bash
indah101   pts/5  lab1107-25..   13:04 15:05   0.20s   0.12s  rtin
firma100   pts/7  lab1109-25..   13:14 3:14    1.12s   1.03s  pine
diah20     pts/32 lab1105-25..   12:57 0.00s   4.39s   4.31s  rtin
alde20     pts/33 lab1109-25..   12:17 3.00s   0.55s   0.45s  rtin
zidni101   pts/38 lab1107-25..   12:45 17:14   1.76s   0.40s  pine
reaz20     pts/48 lab1106-25..   12:38 27.00s  1.81s   1.68s  rtin
iman20     pts/57 lab1101-25..   12:38 22:21   0.23s   0.23s  -bash
bayu100    pts/59 lab1103-25..   12:38 38:32   0.39s   0.28s  rtin
siti100    pts/63 lab1109-25..   12:46 2.00s   1.92s   1.79s  rtin
```

3

top (bunga 20 Mei 2003 - a)

• top: proses apa yang sedang berjalan?

```
11:48:20 up 50 days, 19:07, 15 users

load average: 0.71, 0.74, 0.57

93 processes: 91 sleeping, 1 running, 0 zombie, 1 stopped

CPU states: 16.4% user, 2.7% system, 0.0% nice, 80.9% idle


Mem:  127236K total, 98164K used,  29072K free,  2756K buffers
Swap: 263160K total, 10928K used, 252232K free, 16304K cached
```

top (bunga 20 Mei 2003 - b)

PID	USER	PRI	NI	SIZE	RSS	SHARE	STAT	%CPU	%MEM	TIME	COMMAND
1	root	0	0	148	120	96	S	0.0	0.0	0:09	init
2	root	0	0	0	0	0	SW	0.0	0.0	0:02	kflushd
3	root	0	0	0	0	0	SW	0.0	0.0	0:19	kupdate
4	root	0	0	0	0	0	SW	0.0	0.0	90:50	kswapd
5	root	0	0	0	0	0	SW	0.0	0.0	0:00	keventd
20240	rms46	0	**0**	2540	2488	2136	S	0.0	1.9	0:00	**sshd**
20245	**rms46**	4	0	**2476**	2476	2028	S	0.0	1.9	0:00	**bash**
20281	rms46	**11**	0	2196	**2196**	1752	R	14.3	1.7	0:00	**top**
20238	atmo199	0	0	2516	2456	2068	S	0.0	1.9	0:00	sshd
17936	didik100	0	0	744	236	124	S	0.0	0.1	0:01	sshd
19954	edwin100	0	0	2516	2460	2072	S	0.0	1.9	0:00	sshd
20268	para101	0	0	2516	2460	2072	S	0.0	1.9	0:00	sshd
20271	roy101	0	0	2512	2452	2064	S	0.8	1.9	0:00	sshd
18194	rudi100	0	0	2304	2176	1824	S	0.0	1.7	0:00	sshd
20230	sari199	0	0	2504	2448	2076	S	0.0	1.9	0:00	sshd
20251	sen199	0	0	2488	2432	2060	S	0.0	1.9	0:00	sshd
17932	sherl100	0	0	912	608	492	S	0.0	0.4	0:00	sshd
18223	yudha100	0	0	2304	2176	1824	S	0.0	1.7	0:00	sshd

/proc/

```
rms46@bunga:~/$ cd /proc
rms46@bunga:/proc$ ls -la


dr-xr-xr-x      3 root      root              0 May 20 13:53 1

dr-xr-xr-x      3 rms46     pps_00            0 May 20 13:53 25570
dr-xr-xr-x      3 rms46     pps_00            0 May 20 13:53 25571
dr-xr-xr-x      3 rms46     pps_00            0 May 20 13:53 25595
dr-xr-xr-x      3 rms46     pps_00            0 May 20 13:53 25596
dr-xr-xr-x      3 rms46     pps_00            0 May 20 13:53 25597
dr-xr-xr-x      3 rms46     pps_00            0 May 20 13:53 25618

-r--------      1 root      root      134221824 May 20 13:53 kcore
-r--r--r--      1 root      root              0 May 20 13:53 meminfo
-r--r--r--      1 root      root              0 May 20 13:53 swaps
-r--r--r--      1 root      root              0 May 20 13:53 uptime
-r--r--r--      1 root      root              0 May 20 13:53 version
```

/proc/<process_id>

```
rms46@bunga:/proc$ cd 25597
rms46@bunga:/proc/25597$ ls -la
total 0
-r--r--r-- 1  rms46 pps_00 0 May 20 13:55 cmdline
lrwx------ 1  rms46 pps_00 0 May 20 13:55 cwd -> /proc/25597
-r-------- 1  rms46 pps_00 0 May 20 13:55 environ
lrwx------ 1  rms46 pps_00 0 May 20 13:55 exe -> /bin/bash
dr-x------ 2  rms46 pps_00 0 May 20 13:55 fd
pr--r--r-- 1  rms46 pps_00 0 May 20 13:55 maps
-rw------- 1  rms46 pps_00 0 May 20 13:55 mem
lrwx------ 1  rms46 pps_00 0 May 20 13:55 root -> /
-r--r--r-- 1  rms46 pps_00 0 May 20 13:55 stat
-r--r--r-- 1  rms46 pps_00 0 May 20 13:55 statm
-r--r--r-- 1  rms46 pps_00 0 May 20 13:55 status
```

/proc/cpuinfo

```
rms46@bunga:/proc$ cat cpuinfo
processor      : 0
vendor_id      : GenuineIntel
cpu family     : 6
model          : 3
model name     : Pentium II (Klamath)
stepping       : 4
cpu MHz        : 300.016
cache size     : 512 KB
fdiv_bug       : no
hlt_bug        : no
sep_bug        : no
f00f_bug       : no
coma_bug       : no
fpu            : yes
fpu_exception: yes
cpuid level    : 2
wp             : yes
flags          : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge
                  mca cmov mmx
bogomips       : 598.01
```

/proc/meminfo

```
rms46@bunga:/proc$ cat meminfo
        total:      used:      free:  shared: buffers:  cached:
Mem:  130289664 127205376   3084288 203042816   2682880   8622080
Swap: 269475840 46206976 223268864

MemTotal:       127236 kB
MemFree:          3012 kB
MemShared:      198284 kB
Buffers:          2620 kB
Cached:           8420 kB
SwapTotal:      263160 kB
SwapFree:       218036 kB
```

/etc/version

```
rms46@bunga:/proc$ cat version
Linux version 2.2.20 (herbert@gondolin) (gcc version 2.7.2.3) #1
Sat Apr 20 11:45:28 EST 2002
```

/etc/inittab (1)

```
# The default runlevel --> ''2'' = /etc/rc2.d
id:2:initdefault:

# Boot-time system configuration/initialization script.
# This is run first except in emergency (-b) mode.
si::sysinit:/etc/init.d/rcS

# Runlevel: 0 (halt) -- 1 (single-user) --
#           2-5 (multi-user) -- 6 (reboot).

l0:0:wait:/etc/init.d/rc 0
l1:1:wait:/etc/init.d/rc 1
l2:2:wait:/etc/init.d/rc 2
l3:3:wait:/etc/init.d/rc 3
l4:4:wait:/etc/init.d/rc 4
l5:5:wait:/etc/init.d/rc 5
l6:6:wait:/etc/init.d/rc 6
```

/etc/inittab (2)

```
# What to do when CTRL-ALT-DEL is pressed.
ca:12345:ctrlaltdel:/sbin/shutdown -t1 -a -r now

1:2345:respawn:/sbin/getty 38400 tty1
2:23:respawn:/sbin/getty 38400 tty2
3:23:respawn:/sbin/getty 38400 tty3
4:23:respawn:/sbin/getty 38400 tty4
5:23:respawn:/sbin/getty 38400 tty5
6:23:respawn:/sbin/getty 38400 tty6
```

/etc/rc2.d -- /etc/init.d

```
S10sysklogd        S11klogd         S14ppp
S19nfs-common      S20cupsys        S20exim
S20gpm             S20inetd         S20klisa
S20logoutd         S20lpd-ppd       S20lprng
S20makedev         S20nfs-kernel-server
S20slpd            S20ssh           S30squid
S89atd             S89cron          S91apache
S99fetchmail       S99gdm           S99kdm
S99rmnologin
```

- **SNNxxxx**
  - S   = START
  - NN   = sequence
  - xxxxx = script name

fdisk /dev/hda

```
rmsbase:~# fdisk /dev/hda

Command (m for help): p

Disk /dev/hda: 41.1 GB, 41110142976 bytes
255 heads, 63 sectors/track, 4998 cylinders
Units = cylinders of 16065 * 512 = 8225280 bytes

   Device Boot      Start         End      Blocks   Id  System
/dev/hda1   *           1         523     4200966    b  Win95 FAT32
/dev/hda2             524        1512     7944142+   5  Extended
/dev/hda3            1513        4998    28001295   83  Linux
/dev/hda5             524         750     1823346   83  Linux
/dev/hda6             751        1115     2931831   83  Linux
/dev/hda7            1116        1480     2931831   83  Linux
/dev/hda8            1481        1512      257008+  82  Linux swap
```

fdisk (hdb dan hdc)

```
rmsbase:~# fdisk /dev/hdb
Command (m for help): p

Disk /dev/hdb: 20.5 GB, 20547841536 bytes
255 heads, 63 sectors/track, 2498 cylinders
Units = cylinders of 16065 * 512 = 8225280 bytes

Device Boot Start      End      Blocks    Id  System
/dev/hdb1         1      32     257008+   82  Linux swap
/dev/hdb2        33    2498   19808145    83  Linux
rmsbase:~# fdisk /dev/hdc

Command (m for help): p
Disk /dev/hdc: 20.5 GB, 20547841536 bytes
255 heads, 63 sectors/track, 2498 cylinders
Units = cylinders of 16065 * 512 = 8225280 bytes


   Device Boot      Start       End      Blocks    Id  System
/dev/hdc1               1        31      248976    82  Linux swap
/dev/hdc2              32      2498   19816177+    83  Linux
```

/etc/fstab

- **rmsbase:~# cat /etc/fstab**

```
# /etc/fstab: static file system information.
#
# <fs>          <mt point>    <type>    <options>          <dmp><pss>
proc            /proc         proc      defaults              0 0
/dev/hda8   none             swap      sw                     0 0
/dev/hdb1   none             swap      sw                     0 0
/dev/hdc1   none             swap      sw                     0 0
/dev/hda3   /                ext3      errors=remount-ro   0 1
/dev/hda1   /win98           auto      rw,user,noauto        3 1
/dev/hda6   /knoppix    reiserfs defaults                     2 2
/dev/hda7   /de2             reiserfs defaults               2 2
/dev/hdb2   /var/work1 reiserfs defaults                     3 3
/dev/hdc2   /var/www    reiserfs defaults                    3 3
/dev/cdrom /cdrom        iso9660   ro,user,noauto        0 0
/dev/fd0     /floppy          auto      user,noauto           0 0
/var/iso/test.iso /var/iso/test iso9660   noauto,user,ro,loop=/dev/loop0 0 0
```

- **fstab: informasi statik sistem berkas**

$ df

- **df**

```
Filesystems 1K-blocks      Used Available Use% Mounted on
/dev/hda3   27561176   10571116   15589996   41% /
/dev/hda6    2931732     219772    2711960    8% /knoppix
/dev/hda7    2931732     268432    2663300   10% /de2
/dev/hdb2   19807532    8182092   11625440   42% /var/work1
/dev/hdc2   19815564    8167316   11648248   42% /var/www
/dev/hda1    4192752    3500728     692024   84% /win98
```

- df: pendaya-gunaan sistem berkas

Struktur Direktori

- /proc   -- sistem berkas khusus kernel
- /home -- Home Para Pengguna (users)
- /etc   -- tempat konfigurasi
- /bin, /usr/bin -- standard binaries
- /sbin, /usr/sbin -- standard system binaries
- /var   -- data variabel
- /boot -- kernel
- /usr/local -- keperluan lokal

/etc/passwd -- /etc/shadow

`/etc/passwd` (`rw- r-- r--`)
`root:x:0:0:root:/root:/bin/bash`
`daemon:x:1:1:daemon:/usr/sbin:/bin/sh`
`bin:x:2:2:bin:/bin:/bin/sh`
`sys:x:3:3:sys:/dev:/bin/sh`
`sync:x:4:100:sync:/bin:/bin/sync`
`games:x:5:100:games:/usr/games:/bin/sh`
`rms46:x:1000:1000:`Rahmat M. Samik-Ibrahim`:/home/rms46:/bin/bash`

`/etc/shadow` (`rw- r-- ---`)
`rms46:`**`xsderfjkljslkjlsjlkjllkjls`**`:1:1:11111:1:::`

enkripsi password